1851MNRAS..11..180R

Ephemeris of Parthenope, calculated from the Elements No. III. (Astronomische Nachrichten, No. 763), for Berlin Mean Midnight. By M. Luther.

12^{h}, Berlin Mean Time.

1851.	App. R.A.	Diff.	App. Decl.	Diff.	Log. Δ	Diff.	Aberr. Time in Decimals of a Day.	Diff.
	h m s	m s	° ′ ″	′ ″				
July 12	1 40 2·15	1 14·96	+6 8 10·8	+4 49·8	0·32588	223	0·01209	6
13	41 17·11	1 14·17	13 0·6	4 42·8	0·32365	225	0·01203	7
14	42 31·28	1 13·38	17 43·4	4 35·9	0·32140	225	0·01196	6
15	43 44·66	1 12·56	22 19·3	4 28·7	0·31915	228	0·01190	6
16	44 57·22	1 11·73	26 48·0	4 21·6	0·31687	228	0·01184	6
17	46 8·95	1 10·87	31 9·6	4 14·4	0·31459	230	0·01178	6
18	47 19·82	1 10·01	35 24·0	4 7·0	0·31229	231	0·01172	7
19	48 29·83	1 9·12	39 31·0	3 59·7	0·30998	233	0·01165	6
20	49 38·95	1 8·21	43 30·7	3 52·2	0·30765	234	0·01159	6
21	50 47·16	1 7·29	47 22·9	3 44·7	0·30531	235	0·01153	6
22	51 54·45	1 6·34	51 7·6	3 37·1	0·30296	236	0·01147	7
23	53 0·79	1 5·38	54 44·7	3 29·4	0·30060	238	0·01140	6
24	54 6·17	1 4·39	6 58 14·1	3 21·6	0·29822	239	0·01134	6
25	55 10·56	1 3·38	7 1 35·7	3 13·8	0·29583	240	0·01128	6
26	56 13·94	1 2·36	4 49·5	3 5·9	0·29343	241	0·01122	6
27	57 16·30	1 1·31	7 55·4	2 57·9	0·29102	242	0·01116	7
28	58 17·61	1 0·25	10 53·3	2 49·9	0·28860	243	0·01109	6
29	1 59 17·86	0 59·17	13 43·2	2 41·9	0·28617	244	0·01103	6
30	2 0 17·03	58·07	16 25·1	2 33·7	0·28373	245	0·01097	6
31	1 15·10	56·94	18 58·8	2 25·5	0·28128	247	0·01091	6
Aug. 1	2 12·04	55·81	21 24·3	2 17·2	0·27881	247	0·01085	6
2	3 7·85	54·65	23 41·5	2 9·0	0·27634	248	0·01079	7
3	4 2·50	53·47	25 50·5	2 0·7	0·27386	248	0·01072	6
4	4 55·97	52·27	27 51·2	1 52·2	0·27138	250	0·01066	6
5	5 48·24	51·07	29 43·4	1 43·9	0·26888	250	0·01060	6
6	6 39·31	0 49·82	31 27·3	+1 35·4	0·26638	251	0·01054	6
7	2 7 29·13		+7 33 2·7		0·26387		0·01048	

ASTRÆA.

HAMBURG. Equatoreal. (M. C. Rümker.)

1851.	Hamburg M.T.	R.A.	Decl.	Obs.
	h m s	° ′ ″	° ′ ″	
May 4	10 36 59·0	217 33 7·3	−5 29 11·0	9
7	10 12 15·3	216 54 22·5	17 27·3	2
8	9 52 0·5	41 57·3	13 56·9	20
10	10 22 39 3	216 16 46·0	5 7 3·1	23
17	10 2 51·3	214 56 56·6	4 48 14·8	18
21	9 54 51·4	214 17 14·0:	−4 41 16·3:	2

Not corrected for parallax.

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1851MNRAS..11..181D

Mean Places for January 0·1851 of Stars in the Orbit of *Astræa*, deduced from Observations with the Meridian Circle.

R.A.	Precession.	Decl.	Precession.
h m s	s	° ′ ″	″
14 16 28·20	+3·131	−4 38 35·0	−16·60
18 43·78	3·135	49 1·1	16·50
49 27·65	3·136	50 23·5	16·46
25 18·87	3·138	4 49 12·5	16·15
25 22·13	3·142	5 7 56·6	16·15
27 37·53	3·143	10 39·6	16·04
14 31 10·34	+3·144	−5 8 23·4	−15·85

On the Observation of the Solar Spots with large Telescopes.

By the Rev. W. R. Dawes.

"The appearance of the solar spots is greatly modified by the aperture of the telescope employed in observing them. A large aperture, by reducing the telescopic irradiation, produces a hardness and sharpness of outline which cannot be attained by a diminished aperture, and brings out minute details which would never be suspected with a small telescope, however perfect. It may be some time before the admirable suggestion of Sir John Herschel, to make large solar reflecting telescopes with glass mirrors, will be realised, however desirable may be its accomplishment; and even then such instruments will be suited for that purpose only.

"Various methods have been proposed of preserving the darkening glasses, which it is necessary to employ, from the destructive effect of the excessive heat collected by a large object-glass. None of these, as far as I am aware, has proved completely successful. If a combination of coloured glasses is placed at a considerable distance before the eye-piece, so as to receive the rays before they come to focus, according to Mr. Lawson's proposal, the glasses are still exposed to frequent fracture, if the distance from the focus is not very great in proportion to the whole focal length; and if that distance should be much increased, the coloured glasses must be of large size to receive the whole of the rays from the object-glass, and their quality must be nearly as perfect as that of the object-glass itself, or the focal image will be confused and unsatisfactory. But, notwithstanding the objections to the use of this method, its effect on the appearance of the spots and of the sun's disk generally is so striking, as to render it highly desirable that some arrangement should be devised, by which the sun may be examined with an object-glass of the largest dimensions, without the risk of destruction to the coloured glasses, or of injury to the eye of the observer.

"I have lately employed a mode of observation which enables me to use the whole aperture of my 8½-foot refractor (6⅓ inches) without the slightest inconvenience. Its simplicity is such as to render it extremely probable that it may already have been employed by other more diligent observers of the sun than myself; but as I have never met with any hint of it, some other observer

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